Patent
Attorney's Docket No. 026350-060

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Divisional Application of	)	
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Shigeori TAKENAKA	)	Group Art Unit: Unassigned
	)	
Application No.: Unassigned	)	Examiner: Unassigned
	)	
Filed: July 12, 2001	)	
	)	
For: A PROBE FOR DETECTING A HIGHLY ORDERED STRUCTURAL SITE OF A SINGLE STRANDED NUCLEIC ACID OF A GENE, AND A METHOD AND A DEVICE FOR DETECTING THE SAME	)	

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Prior to the first Official Action, please amend the above-identified application as follows:

IN THE CLAIMS:

Please cancel claims 1-15 without prejudice or disclaimer to the subject matter recited therein and add new claims 16-19 as follows:

16. (New) A method for detecting a highly ordered structural site of a nucleic acid of a gene, the method of comprising:

contacting a gene with a probe to generate an electrochemical response; and

detecting the electrochemical response

wherein the probe comprises a cyclic ligand containing ferrocenyl group and a DNA threading intercalating moiety.

17. (New) A device for detecting a highly ordered structural site of a nucleic acid of a gene using a probe, the device comprising:

a container,

a solution for dissolving the probe, the solution being held in the container,

a working electrode modified with a gene, the working electrode dipped in the solution in the container, and

a counter electrode dipped in the solution in the container

wherein the probe comprises a cyclic ligand containing ferrocenyl group and a DNA threading intercalating moiety.

18. (New) A method for detecting a highly ordered structural site of a nucleic acid of a gene, the method of comprising:

contacting a gene with a probe to generate an electrochemical response; and

detecting the electrochemical response

wherein the probe comprises a cyclic ligand containing ferrocenyl group and a DNA threading intercalating moiety wherein the cyclic ligand further comprises two linker moieties each having two terminal amino groups, each linker moiety being connected with the DNA threading intercalating moiety through one of said terminal amino groups, and each linker moiety being connected with the ferrocenyl group through the other of said terminal amino groups.

19. (New) A device for detecting a highly ordered structural site of a nucleic acid of a gene using a probe, the device comprising:

a container,

a solution for dissolving the probe, the solution being held in the container,

a working electrode modified with a gene, the working electrode dipped in the solution in the container, and

a counter electrode dipped in the solution in the container

wherein the probe comprises a cyclic ligand containing ferrocenyl group and a DNA threading intercalating moiety wherein the cyclic ligand further comprises two linker moieties each having two terminal amino groups, each linker moiety being connected with the DNA threading intercalating moiety through one of said terminal amino groups, and

each linker moiety being connected with the ferrocenyl group through the other of said terminal amino groups.

REMARKS

By the present Preliminary Amendment, the non-elected subject matter of dependent claims 14, 15, 17 and 18 from the parent application have been presented as new independent claims 16-19. Favorable consideration on the merits is respectfully requested.

In the event that there are any questions relating to this application, it would be appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that prosecution of this application may be expedited.

Respectfully submitted,

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Date: July 12, 2001